

Title (en)

Methods and systems for assembling shrouded turbine bucket and tangential entry dovetail

Title (de)

Methoden und Anordnungen zur Montage von Turbinenschaufeln mit Deckband und tangentialen Schwalbenschwanzbefestigungen

Title (fr)

Procédés et arrangements pour le montage d' aubes de turbine comprenant des viroles et des fixations tangentielles en queue d'aronde

Publication

EP 1731713 A2 20061213 (EN)

Application

EP 06252824 A 20060531

Priority

US 14229205 A 20050602

Abstract (en)

Rhombic shrouded tangential entry buckets (14) are circumferentially applied to the rotor wheel rim of a turbine. A fixture (26) is releasably secured to a lug (24) on each bucket and includes a chamfered surface (42) for engaging a complementary surface (48) on the lug. Upon applying a tangential assembly force, the shroud (20) and airfoil (16) of adjacent buckets are pre-twisted in a rotational direction about a generally radial axis enabling dovetail faces to contact one another notwithstanding interference fit shroud contacting surfaces (32). The removal of the fixture from the lug enables the bias of the airfoil (16) to rotate the shroud in an opposite direction into final assembly with the shroud edges (30) of adjacent buckets in contact with one another and the dovetail faces (34) thereof in contact with one another.

IPC 8 full level

F01D 5/22 (2006.01); **F01D 5/30** (2006.01)

CPC (source: EP US)

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Citation (applicant)

- US 5509784 A 19960423 - CARUSO DAVID A [US], et al
- US 5590784 A 19970107 - DANIELS MARK E [US]

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EP3070267A1; EP2551460A1; CN109057870A; EP2075721A1; FR2925572A1; US8140308B2

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